



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/625,344	07/23/2003	John C. Rueter	P-11206.00	8594
27581	7590	02/08/2006	EXAMINER	
MEDTRONIC, INC. 710 MEDTRONIC PARK MINNEAPOLIS, MN 55432-9924			JOHNSON, SHEVON ELIZABETH	
			ART UNIT	PAPER NUMBER
			3766	

DATE MAILED: 02/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	10/625,344		RUETER ET AL.	
	Examiner		Art Unit	
	Shevon E. Johnson		3766	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07/23/2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4/2/04 & 2/14/05</u> . | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1, and 7-11 are rejected under 35 U.S.C. 102 (b) as being anticipated by Markowitz et al. (U.S. Patent No. 5,601,615), cited by applicant.**

In regards to claims 1, 7, 10 and 11, discloses an atrial capture management (ACM) method comprising: defining an ACM test window exceeding a prevailing A-A escape interval and correlated to the slow intrinsic atrial heart rate; setting the A-PACE pulse energy of a test A-PACE pulse (test stimuli); triggering the atrial pace pulse generator means to deliver at least one test A-PACE pulse at the test A-PACE pulse energy during the ACM test window; timing out the ACM test window; declaring ALOC by the delivered test A-PACE pulse at the test A-PACE pulse energy if an A-EVENT is declared during the time-out of an ACM test window; declaring atrial capture by the delivered test A-PACE pulse at the test A-PACE pulse energy in the absence of an A-EVENT declared during the ACM test window; and setting the prevailing A-PACE pulse energy as a function of the test A-PACE pulse energy at ALOC (col. 20, lines 45-65; col. 21, lines 21-61, Fig. 10).

In regards to claim 8, discloses an atrial capture management (ACM) method future comprising the steps of: wherein the triggering step further comprises triggering the atrial pace pulse generator means to deliver at least one additional test A-PACE pulse at the test A-PACE pulse energy during the ACM test window (col. 21, lines 24-28, Fig. 10).

In regards to claim 9, discloses an atrial capture management (ACM) method future comprising the steps of: wherein the timing step comprises counting a plurality of delivered test A-PACE pulses at the test A-PACE pulse energy and halting the time-out of the ACM test window when a predetermined number of test A-PACE pulses are delivered (col. 21, lines 34-54, Fig. 10).

Art Unit: 3766

3. Claims 1-11 are rejected under 35 U.S.C. 102 (b) as being anticipated by Bornzin et al. (U.S. Patent No. 6,389,316), cited by examiner.

In regards to claims 1, 7, 10 and 11, Bornzin et al. discloses an atrial capture management (ACM) method comprising: defining an ACM test window exceeding a prevailing A-A escape interval and correlated to the slow intrinsic atrial heart rate; setting the A-PACE pulse energy of a test A-PACE pulse; triggering the atrial pace pulse generator means to deliver at least one test A-PACE pulse at the test A-PACE pulse energy during the ACM test window; timing out the ACM test window; declaring ALOC by the delivered test A-PACE pulse at the test A-PACE pulse energy if an A-EVENT is declared during the time-out of an ACM test window; declaring atrial capture by the delivered test A-PACE pulse at the test A-PACE pulse energy in the absence of an A-EVENT declared during the ACM test window; and setting the prevailing A-PACE pulse energy as a function of the test A-PACE pulse energy at ALOC (col. 9, lines 23-67; col. 10, lines 1-22, Fig. 2).

In regards to claims 2-6, discloses an atrial capture management (ACM) method future comprising the steps of: determining if an A-EVENT detected during the ACM test window is likely due to one of retrograde conduction of or far field sensing of a ventricular depolarization; and withholding the declaration of ALOC if the A-EVENT is likely due to one of retrograde conduction of or far field sensing of a ventricular depolarization (col. 11, lines 20-68; col.12, lines 1-19; Figs. 2 and 4).

In regards to claim 8, discloses an atrial capture management (ACM) method future comprising the steps of: wherein the triggering step further comprises triggering the atrial pace pulse generator means to deliver at least one additional test A-PACE pulse at the test A-PACE pulse energy during the ACM test window; and wherein the timing step comprises counting a plurality of delivered test A-PACE pulses at the test A-PACE pulse energy and halting the time-out of the ACM test window when a predetermined number of test A-PACE pulses are delivered (col. 9, lines 60-67).

Art Unit: 3766

4. **Claims 12-22 are rejected under 35 U.S.C. 102 (b) as being anticipated by Markowitz et al. (U.S. Patent No. 5,601,615), cited by applicant.**

In regards to claims 12-22, Markowitz et al. discloses a pacing system 26 adapted to be implanted in a patient's body to provide atrial pacing. The pacing system comprising: a atrial pulse generator 340, an active and indifferent atrial pace sense electrodes 16 and 18, atrial sensing means 360, and a digital controller/timer circuit 330 that is capable of performing the task of defining the A-A escape interval timing, triggering and an atrial capture management (ACM) means (col. 5, lines 45-57, col. 7, lines 35-42, Figs. 1 and 3).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 12-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bornzin et al. (U.S. Patent No. 6,389,316) in view of Markowitz et al. (U.S. Patent No. 5,601,615).**

In regards to claims 12-22, Bornzin et al. discloses a pacing system 10 adapted to be implanted in a patient's body to provide atrial pacing. The pacing system comprising: a atrial pulse generator 16, an active atrial pace sense electrode 18, atrial sensing means 26, and a digital controller/timer circuit 30 that is capable of performing the task of defining the A-A escape interval timing, triggering and an atrial capture management (ACM) means (col. 7, lines 11-36, Fig. 1). Bornzin et al. fails to disclose an indifferent atrial pace sense electrode. However, Markowitz et al. teaches a pacing system 26 the use of an indifferent atrial pace sense electrode 18 (col. 5, lines 45-52). Therefore, it would have been obvious to one of ordinary skill in the art to modify Bornzin et al. by substituting the electrode 18 of Markowitz et al. in order to provide unipolar pacing and sensing as another mode of sending A-PACE pulses and sensing P-waves (col. 5, lines 61-67).

Art Unit: 3766


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shevon Johnson whose telephone number is (571) 272-2010. The examiner can normally be reached on M-F (8 a.m. - 4:30 p.m.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pezzuto can be reached on (571) 272-6996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Shevon Johnson
Art Unit 3766


Robert Pezzuto
Supervisory Patent Examiner
Art Unit 3766